

Ser. No.10/537,113
Customer No. 24498

PU020485

Amendments to the Specification

Please **replace** the paragraph beginning at page 3, line 22 with the following **amended** paragraph:

FIGURES 3-6 10 collectively illustrate a pulse map depicting each of a plurality of sequences of pulse width segments that control the brightness of a corresponding color of one of the pixels within the display system of FIG. 1 to reduce motion artifacts in accordance with the present principles.

Please **replace** the paragraph beginning at page 5, line 33 with the following **amended** paragraph:

To best understand the manner in which such close coordination occurs between the pulses that become actuated and those that become de-actuated, refer to FIGS. 3-6 10, which collectively depict a pulse map of the pulse width segments for achieving each of brightness levels #1 to #255 (eight bit resolution) for a given color in accordance with the present principles. The darkest non-zero brightness level (level #1), which in the illustrated embodiment constitutes a first pixel brightness boundary, starts with a 1-LSB pulse in Segment 3. As the pixel brightness increases beyond brightness level #1, the actuated pulses are confined to Segment 3 for the first 63 brightness levels when employing binary coding, with brightness level #63 constituting a second brightness boundary. Within the first 63 pixel brightness levels, the total width of the pulses that become actuated within Segment 3 remain nearly equal to the pulses that become de-actuated in accordance with present principles because the pulses within the other segments remain de-actuated until reaching pixel brightness level #64.

Please **replace** the paragraph beginning at page 6, line 28 with the following **amended** paragraph:

The manner in which coordination occurs between pulse actuation and de-actuation in accordance with the present principles becomes much more apparent at pixel brightness levels higher than brightness level #63. Above this pixel brightness level, there exist six pulse combinations that have pulses in Segments 1, 2, and 4. One example is the

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incremental transition from pixel brightness level #74 to brightness level #75 as seen in FIG. 4. To achieve such an incremental increase in pixel brightness, the combination of three 4-LSB pulses must become actuated, one in each of Segments 1, 2, and 4, while de-actuating pulses in these three segments. As can be seen from FIG. 4, in Segment 1, a 2-LSB pulse and two 1-LSB pulses become de-actuated to counterbalance the actuated 4-LSB pulse in Segment 1. The same actuation and de-actuation of pulses occurs in Segment 4. In Segment 2, a 4-LSB pulse becomes actuated while a 1-LSB pulse and a 2-LSB pulse become de-actuated. This 1-LSB difference implements the brightness increment between these two pixel brightness levels. A similar strategy achieves other incremental brightness transitions, except for one. The transition from pixel brightness level #158 to level #159, as seen in FIG. 5, includes a 1-LSB pulse de-actuated in Segment 3 with no other pulses actuated in same segment, along with Segment 2 having 33 LSB total pulses actuated while 31 LSB pulses are de-actuated. This constitutes the only violation of the principle of seeking to equalize the total weight of actuated and de-actuated pulses segment by segment as illustrated in FIGS. 3-6 10. This violation is minor and occurs at a sufficiently high brightness so as not to be visible.